

L 40952-65 EEC-1/EE0-2/EE0-2/EWT(d)
 ACCESSION NR: AP5006585

S/0142/64/007/006/0655/0665

19
E

AUTHOR: Chaykovskiy, V. I.

TITLE: Variation of correlations during the smoothing of decorrelated stochastic processes

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 6, 1964, 655-665

TOPIC TAGS: signal to noise ratio, signal storage reception

ABSTRACT: The crosscorrelation factor of two signals $R = \frac{y_{1h} \cdot y_{2h}}{(\overline{y_{1h}^2} \cdot \overline{y_{2h}^2})^{1/2}}$ is determined; here, y_{1h} and y_{2h} are the signals at the outputs of smoothing filters. The smoothing of decorrelated (synchronous- or asynchronous-storage reception) signals is effected by identical filters with known transient characteristics $h(t)$. Two-channel linear, nonlinear, and parametric delayed systems are analyzed. It is found that in linear and nonlinear delayed systems, the correlation links tend to

Card 1/2

E 40952-85

ACCESSION NR: AP5006585

restore themselves; when the intensity of smoothing approaches infinity, the correlation factor of the filtration products approaches 1. In a two-channel autocorrelation system, the correlation degree of the filtration products depends slightly on the smoothing intensity. Preservation of statistical independence of noise at the output of a parametric (autocorrelation) two-channel system makes it different from conventional delayed systems and indicates its practicability for noise-elimination devices. In developing crosscorrelation formulas, the original signal $x(\tau)$ was defined as an autocorrelation function $\sin \omega\tau / \omega\tau$, i. e., a wide-band l-f noise was considered. However, the same formulas hold true for the narrowband h-f noise whose autocorrelation function has a form of $\sin \omega\tau \cdot \cos \omega\tau / \omega\tau$. Orig. art. has: 3 figures, 53 formulas, and 3 tables.

ASSOCIATION: none

SUBMITTED: 28Mar63

ENCL: 00

SUB CODE: EC

NO REF SOV: 003

OTHER: 000

Card 2/2

CHAYKOVSKIY, V.I.

Energy spectrum of a sum of lagging stochastic signals. Izv.
vys. ucheb. zav.; radiotekh. 8 no.1:87-89 Ja-F '65.
(MIRA 18:5)

VASYUK, G.I.; CHAYKOVSKIY, V.I.

Determination of an autocorrelation function using selected
values of a random process. Izv. vys. ucheb. zav.; radiotekh.
8 no.3:357-360 My-Je '65. (MIRA 18:9)

CHAYKOVSKIY, V.I., dotsent

Statistical characteristics of normalized Fourier's transformation of the sample distribution function of a stationary random process. Izv.vys.ucheb.zav.; radiotekh. 8 no.5:523-529 S-0 '65. (MIRA 18:12)

1. Submitted September 10, 1964.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
pp 113-114 (USSR) 15-1957-3-3251

AUTHOR: Chaykovskiy, V. K.

TITLE: New Data on the Pacific Ocean Belt (Novyye dannyye
o Tikhookeanskom poyase)

PERIODICAL: Sov. geologiya, 1956, Nr 50, pp 134-149

ABSTRACT: There is now data available which should be used to clarify and develop the view of S. S. Smirnov on the existence of two metallogenic zones in the Pacific belt--an outer and an inner. It is much easier to resolve the problems of zonal structures if one considers not only the distribution of copper and tin deposits but also the accumulations of other metals whose distribution is a function of the degree of increasing "acidity" of the parental magma.

Card 1/4

15-1957-3-3251

New Data on the Pacific Ocean Belt

Thus chromium, nickel, copper, gold and silver, pyrite deposits with lead and zinc, and mercury are "mesocratic" products; and lead-zinc (veins), molybdenum, tungsten, and tin are "leucocratic" products. It has already been noted by Yu. A. Bilibin that leucocratic granitic intrusions are confined to the later phases of folding and to the more labile axial parts of the geosynclines. From this it follows that "leucocratic" ore mineralization should be localized in the central parts of geosynclines and "mesocratic" mineralization along the bordering parts of these geosynclines. The Pacific belt is not uniform; it contains separate, disconnected geosynclines with their own systematic internal structures. In studying the position of ore deposits in the geosynclinal regions of Korea, Japan, and Southern China, it was discovered that the ore in each of these has its own particular zonal arrangement---"leucocratic" mineralization in the central parts, "mesocratic" in the outer. The ore

Card 2/4

15-1957-3-3251

. New Data on the Pacific Ocean Belt .

deposits in the western United States do not fit into the scheme of S. S. Smirnov; there the ore zones (geosynclinal) surround the Colorado and Columbia plateaus (central masses). The most productive deposits of tungsten and tin are concentrated in the central parts of the zone, but copper and gold-silver mineralization are found in the peripheral parts. In South America too, the Bolivian tin deposits are confined to the places of greatest uplift of the geosyncline; this central zone is surrounded by ore occurrences typical of mesocratic magmas. This definite systematic relationship may be called geosynclinal ore zonality. Where there is a wedging out of the central zone of geosynclinal mineralization, faulting becomes important and is associated with greater depths of "mesocratic" features of mineralization. The straight truncated borders of geosynclines favor the development of deep faults with the exposure of hyperbasites. It is probable, therefore, that hyperbasites almost never

Card 3/4

15-1957-3-3251

New Data on the Pacific Ocean Belt

occur around oval central masses but are confined to long, narrow downwarps of the earth's crust, such as the Ural geosyncline or the South African grabens. The constriction of geosynclines in space with their restriction in time is also explained by the nature of the mineralization, which becomes more "mesocratic" toward the center of the Pacific basin.

Ye. P. M.

Card 4/4

CHAYKOVSKIY, V.K.

Systematization of the genetic relationship between endogenic mineralization processes. Sov. geol. 2 no.5:81-95 My '59.
(MIRA 12:8)

1.Sovet po izucheniyu proizvoditel'nykh sil AN SSSR.
(Ore deposits)

CHAYKOVSKIY, Vasilii Konstantinovich; YEROFYEV, B.N., red.; MIRZOYEVA, M.D., red.izd-va; IVANOVA, A.G., tekhn.red.

[Geology of tin-bearing deposits in the northeastern part of the U.S.S.R.] Geologiya olovonosnykh mestorozhdenii Severo-Vostoka SSSR. Pod red. B.N.Erofeeva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane neдр, 1960. 334 p. (MIRA 13:7)
(Russia, Northern--Tin ores)

CHAYKOVSKIY, V.K.

Relation between endogenetic mineralization and magmatism in the
process of geosyncline development. Sov. geol. 4 no.3:31-43
Mr '61. (MIRA 14:5)

1. Laboratoriya osadochnykh poleznykh iskopayemykh AN SSSR.
(Geology, Structural)
(Ore deposits)

SHCHERBAKOV, D.I., akademik, glav. red.; YEROFEYEV, B.N., otv. red.;
NALIVKIN, D.V., akademik, red.; AL'TGAUZEN, M.P., red.;
DANCHEV, V.I., red.; MOZESON, D.L.; LEVCHENKO, S.V., red.;
CHAYKOVSKIY, V.K., red.; SHEYNMAN, V.S., red. izd-va;
DOROKHINA, I.N., tekhn.red.; LAUT, V.G., tekhn.red.

[Geochemistry, petrography, and mineralogy of sedimentary
formations] Geokhimiia, petrografiia i mineralogiia osadoch-
nykh obrazovani. Moskva, 1963. 457 p. (MIRA 16:12)
(Rocks, Sedimentary)

GHAYKOVSKIY, V.K.; STEPANOV, A.A.

Some characteristics of the endogene ore process. Sov. geol. 6
no.6:3-19 Je '63. (MIRA 16:7)

1. Laboratoriya osadochnykh poleznykh iskopayemykh AN SSSR.
(Siberia, Eastern—Ore deposits)

CHAYKOVSKAYA, V.M.; AFANAS'YEV, G.F.; ZNAMENSKIY, G.N.

Properties of acid solutions of zinc sulfate. Zhur.prikl.khim.
36 no.6:1355-1357 Je '63. (MIRA 16:8)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.
(Zinc sulfate) (Sulfuric acid)

CHAYKOVSKIY, V.T. (Karaganda)

New agent for treating minor skin injuries. Fel'd. i akush.
27 no.2:38-40 F '62. (MIRA 15:3)
(SKIN—WOUNDS AND INJURIES)

CHAYKOVSKIY, Ya.

1955

2

1 * F/W

✓ Chaikovskii, Ya., and Titic, T. On the real zeros of the confluent hypergeometric series. Uspehi Mat. Nauk (N.S.) 10 (1955), no. 4(66), 161-165. (Russian)
 Math The author constructs a Sturmian chain of suitable multiples of ${}_1F_1(a+n; c+n; x)$, $n=0, 1, 2, \dots$, and uses it to establish the known distribution [A. Erdélyi et al., Higher transcendental functions, vol. 1, McGraw-Hill, New York, 1953, p. 289; MR 15, 419] of real zeros of ${}_1F_1(a; c; x)$ when a and c are real. A. Erdélyi.

Don
 1955

TATARENKO, A.M., inzh.; CHAYKOVSKIY, Ye.N.

Use of anchoring as permanent supports. Shakht. stroi. no.5:21-23
'58. (MIRA 11:6)

1.Stroitel'noye upravleniye No.6 tresta Stalinshakhtostroy.
(Mine timbering)

ZAGURSKIY, V.A.; ZALITSMAN, L.G.; CHERNAYA, S.M.; CHAYKOVSKIY, Yu.B.

The AG-16 and AG-18 automatic electroplating lines. Avtom. i prib. no.2:
66-69 Ap-Je '65. (MIRA 18:7)

BELEVICH, Nikolay Ivanovich; CHAYKOVSKIY, Yuriy Vatslavovich; SUKHOV,
I.V., inzh., red.; VASIL'YEV, Yu.A., red. izd-vz; BOL'SHAKOV,
V.A., tekhn. red.

[Mechanization of fitting and lapping operations; the 3 UMD.
electric unit for the mechanization of lapping Mekhanizatsiia
slesarno-dovodochnykh rabot; elektrifitsirovannaya ustanovka
mekhanizatsii dovodki tipa 3 UMD. Leningrad, 1962. 26 p.
(Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obzory
peredovym opytom. Seriya: Mekhanicheskaya obrabotka metallov,
no.3) (MIRA 15:3)

(Grinding machines)

KLIMOV, Igor' Yevdokimovich; CHAYKUN, M.I., otv.red.; SILINA, L.A.,
red.izd-va; GALANOVA, V.V., tekhn.red.

[Design and operation of aerial cableways] Ustroistvo i
ekspluatatsiia podvesnykh kanatnykh dorog. Moskva, Gosgor-
tekhizdat, 1960. 108 p. (MIRA 14:2)
(Cableways)

S/081/62/000/014/023/039
B166/B144

AUTHORS: Molchanov, B. A., Gluzman, L. D., Gilyazetdinov, L. P.,
Chaykun, M. I.

TITLE: Pitch distillate, a new form of raw material for the
production of carbon black

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 532, abstract
14M204 (Vestn. tekhn. i ekon. inform. N.-i in-t tekhn.-ekon.
issled. Gos. kom-ta Sov. Min. SSSR po khimii, no. 12, 1961,
23 - 24)

TEXT: Industrial test results for a trial batch of pitch distillate (PD)
are given, this being got by oxidizing and coking coal-tar pitch to form
a highly aromatized product used in the manufacture of carbon black. The
industrial process for producing the carbon black is practically the same
as when producing spray burner black from anthracene fraction. It is
established that both these forms of carbon black have the same physico-
chemical properties but the yield of the carbon black from PD is 2.3%
higher. The experimental carbon black fulfils the requirements of

Card 1/2

Pitch distillate, a new form...

S/081/62/000/014/023/039
B166/B144

ГОСТ 7885-56 (GOST 7885-56). PD dissolves well at a temperature $\geq 50^{\circ}\text{C}$ in green oil and catalytic gas oil; the mixtures obtained are transportable. To avoid the burners coking up in continued operation it is expedient to use PD mixed with the anthracene fraction (mixtures with a small PD content have been tested). When 5 - 10% PD is added to green oil the yield of spray burner black is increased by 3%. PD is being introduced into the production of spray burner and lamp black to replace the anthracene fraction which is in short supply. Available stocks of PD also permit of its use for partly replacing green oil. [Abstracter's note: Complete translation.] ✓

Card 2/2

S/138/61/000/012/004/008
A051/A126

AUTHOR: Chaykun, M.I.

TITLE: Raw material sulfur distribution in products of carbon black formation

PERIODICAL: Kauchuk i rezina²⁰ no. 12, 1961, 26 - 30

TEXT: A study was made on the composition of sulfurous compounds in raw material for the production of carbon black, and the sulfur distribution in products of carbon black formation. A chromatographic analysis was conducted for the sulfurous-compound characterization, using typical samples of green soap and heavy gasoil of catalytic cracking. The physico-chemical constants of the chromatographic fractions were compared with those of the synthesized and identified individual sulfurous compounds. The chromatography was conducted in two consecutively connected columns, with silica gel ACK (ASK). Conclusions were drawn that the sulfurous compounds in the given samples of raw material are represented by compounds having a refractive index and specific weight close to these. In typical raw material for the production of carbon black the sulfurous compounds are present in the form of tri- and polycyclic derivatives of

Card 1/4

Raw material sulfur distribution in

S/138/61/000/012/004/008
A051/A126

thiophane and thiophene. Aliphatic mercaptanes, sulfides, and disulfides were not found to be present in these samples. The distribution of the sulfur in products of the carbon black formation process was studied according to a scheme described in Ref. 13 (F.M. Rapoport, Trudy GIAP, no. 1, Goskhimizdat, 1953, 275). It is based on the principle of selective absorption of thiophene by 92% sulfuric acid and carbon bisulfide with transformer oil. The general content of the organic sulfur $S_{org}^{gen.}$ was determined by the combustion of gas after the absorption of the carbon bisulfide, and the content of the carbon oxysulfide S_{cos} by the combustion of the gas remaining after the absorption of the carbon bisulfide. A compact set-up of the gas-analyzer type was constructed on this basis (Fig. 1). The difference of the sulfur content determined in the first and second flow (Fig. 1), is equal to the sulfur content in the form of thiophene S_{thioph} : $S_{thioph} = S_{org}^{gen.} - S_{CS_2} + COS$. The difference between the contents of the sulfur in the second and third flow is equal to the content of the sulfur gas in the form of carbon bisulfide, $S_{CS_2} = S_{CS_2} + COS - S_{COS}$. The sulfur distribution of the raw material for carbon black formation was studied on equipment used in the production of carbon black, with an output of 2.5 kg/h of raw material. The content of the sulfur in the raw material and carbon black

Card 2/5

Raw material sulfur distribution in

S/138/61/000/012/004/008
A051/A126

was determined according to GOST 1437-56 (GOST 1437-56), and that in the gas according to the given method in the article. Experiments were conducted according to two methods, corresponding to the production of two types of active furnace carbon blacks МП-70 (FM-70) and МП-100 (FM-100). The general sulfur concentration in the gas $S_{gen.}$ was calculated according to obtained data, after which the gas content of the elementary sulfur was estimated at $S_{elem.} = S_{gen.} - (S_{H_2O} + S_{org.}^{gen.})$. The sulfurous compounds in the gas of carbon black formation were found to be present in the form of hydrogen sulfide, carbon bisulfide, carbon oxysulfide, thiophene and elementary sulfur. With an increase in the sulfur content in the raw material, the quantity of hydrogen sulfide, carbon bisulfide and elementary sulfide in the gas increases. The content of carbon oxysulfide and thiophene hardly depends on the amount of sulfur in the raw material. With an increase in the temperature of the process, the gas content of hydrogen sulfide and carbon bisulfide decreases, and that of carbon oxysulfide, thiophene and elementary sulfur, increases. The sulfur content in the carbon black increases with the increasing sulfur quantity in the raw material. With an increase in the temperature of the process and the sulfur content in the raw material, the sulfur content in the carbon black decreases. It is thought necessary to use raw material having not more than 1% sulfur for the

Card 3/5

Raw material sulfur distribution in

S/138/61/000/012/004/008
A051/A126

production of carbon black with a sulfur content as high as 0.7%. There are 2 tables, 3 figures and 16 references: 9 Soviet-bloc and 7 non-Soviet-bloc. The references to the 3 most recent English-language publications read as follows: C.I. Thompson, H.J. Coleman, H.T. Rall, H.M. Smith, Anal. Chem., 27, 175 (1955); S.F. Birch, T.V. Cullum, R.A. Dean, R.L. Denyer, Ind. Eng. Chem., 47, 240 (1955); M.L. Studebaker, Rubb. Chem. Technol., 30, no. 5, 1,400 (1957). ✓

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

Figure 1: Equipment for the determination of sulfurous compounds in gas of carbon black production: 1 - filter; 2 - absorbers with a 5% solution of cadmium acetate; 3 - dryer; 4, 5, 8, 13 - rheometers for gas; 6, 11, 17 - furnaces for the combustion of gas; 9, 14 - absorbers with a 92% solution of sulfuric acid; 10, 15 - catchers with alkaline solution; 16 - absorbers with transformer oil; 7, 12, 18 - absorbers with a 3% solution of hydrogen peroxide; 19 - absorbers with an alkaline solution of potassium ferrocyanide; 20 - rheometers for air. a) gas; b) to the pump.

Card 4/5

L 36981-65 ENG(j)/EWP(e)/EWT(m)/EPF(c)/ENG(m)/EPR/EWP(t)/EWP(b) Pr-4/PS-4
IJP(c)

ACCESSION NR: AP5007756

S/0192/65/006/001/0086/0069 JD/WI/WE

AUTHOR: Fialkov, A.S.; Bayer, A.I.; Smirnov, B.N.; Chaykun, M.I.; Sidorov, N.M.;
Rabinovich, S.M.; Yurkovskiy, I.M.

TITLE: The structure of the various modification of pyrolytic carbon

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 1, 1965, 66-69

TOPIC TAGS: pyrolytic carbon structure, interboundary region, mosaic structure,
carbon anisotropy, carbon azimuthal disorientation, natural graphite structure, hydro-
carbon pyrolysis

ABSTRACT: The structure of pyrolytic carbon was studied by microstructural, electron-
microscopic, X-ray and microdiffraction analysis to determine the conditions of structure
formation, depending on the temperature, method of heating and atmosphere of the reac-
tion space. Various hydrocarbons (propane, butane, etc.) were used as sources. The
deposit was obtained by heating in a high-frequency induction furnace or by an exterior
heat source to temperatures above 2000C; further thermal treatment was carried out at
above 3000C. The presence of interboundary regions of a specific globular structure was

Card 1/2

L 36981-65

ACCESSION NR: AP5007758

detected which determine the structural anisotropy of the pyrolytic carbon. In specimens obtained under nitrogen, the interboundary regions were parallel, occurring at regular intervals. Occasionally, boundary regions showed specific chain-like outgrowths. Thermal treatment of pyrolytic carbon at temperatures above 3000C caused block formations in the recrystallized pyrolytic carbon of a mosaic-like substructure and regions of shifting dislocation; recrystallization led to a considerable decrease in the azimuthal disorientation. The high anisotropy was also seen in the roentgenogram. The carbon obtained at a temperature above 2000C in a vacuum (electric heat source) corresponded to the structure of amorphized natural graphite with a high degree of preferred crystal orientation (anisotropic factor about 30); the carbon obtained by pyrolysis in the vacuum induction furnace was more ordered than that obtained in a vacuum resistance furnace. Orig. art. has: 6 figures.

ASSOCIATION: None

SUBMITTED: 16Jan64

ENCL: 00

SUB CODE: OC

NO REF SOV: 003

OTHER: 007

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Card 2/2

L 26926-65 ENG(j)/ENT(m)/EPF(c)/ENP(e)/EWG(m)/EPR/ENP(j)/ENP(b) Pc-4/Pr-4/
Ps-4 RPL WW/JFW/RM/WH
ACCESSION NR: AP5006976 S/0074/65/034/001/0132/0153

AUTHOR: Fialkov, A. S.; Baver, A. I.; Sidorov, N. M.; Chaykun, M. I.;
Rabinovich, S. M.

TITLE: Pyrolytic graphite: preparation, structure, properties

SOURCE: Uspekhi khimii, v. 34, no. 1, 1965, 132-153

TOPIC TAGS: pyrolytic graphite, hydrocarbon decomposition, hydrocarbon pyrolysis,
pyrolysis mechanism, graphite structure, graphite property, graphite application

ABSTRACT: An up-to-date comprehensive review of Western and Soviet literature on the preparation, structure, properties, and applications of pyrolytic graphite (PG) has been presented. Soviet sources comprise about 25% of the total of 120 references. In the last few years the unique properties of PG attracted attention of researchers and engineers in various scientific and technological fields. PG is valuable not only as a material with unique properties, but also as a starting material for preparation of other pyrolytic materials, especially pyrolytic carbides and carbonitrides which might become increasingly important in the near future.

Card 1/5

I 26926-65
ACCESSION NR: AP5006976

Purely scientific interest in the study of PG is derived from its properties which depend only on changes in structure. 8

Soviet researchers contributed to the study of PG in the following fields:

1. Mechanism of the pyrolysis of hydrocarbons. P. A. Tesner and co-workers advanced the theory of direct high-temperature decomposition of hydrocarbon molecules into carbon and hydrogen on a heated substrate and introduced the concept of "threshold" concentration of carbon, at which carbon black begins to form in the gas phase. They also explained retardation of pyrolysis by hydrogen. A. P. Rudenko contributed to the hypothesis of multiple dehydrogenation-condensation of aromatic hydrocarbons. V. A. Poltorak and V. V. Voyevodskiy and P. S. Shantarovich and B. V. Pavlov presented experimental evidence of the free-radical mechanism in the pyrolysis of propane and methane. The authors of the review concluded that the free-radical mechanism of the formation of PG 7

Card 2/5

L 26926-65
ACCESSION NR: AP5006976

is the most credible, but that the multiple dehydrogenation-condensation mechanism coupled with radical polymerization ought also to be considered. The authors summarized different points of view into one coherent theory on the mechanism of high- and low-temperature pyrolysis of hydrocarbons.

I. L. Mar'yasin, and P. A. Tesner studied the kinetics of deposition of PG films in the low-temperature pyrolysis of methane and concluded that the temperature coefficient of the pyrolysis rate is high. The catalytic effect of the surface (active alumina) on the cracking of hydrocarbons was studied by G. V. Benevolenskaya and V. P. Kel'tsev.

2. Structure of PG. Recent contributions were made by A. S. Fialkov and co-workers on the x-ray study of the crystal structure, V. I. Kasatochkin and A. T. Kaverov on the determination of the degree of graphitization as a function of the $c/2$ spacing (between layers), and A. S. Fialkov and co-workers (*Zh. strukt. khimii*, v. 6, no. 1, 1965) on x-ray and electron-microscope study of the microstructure of PG.

Card 3/5

L 26926-65
ACCESSION NR: AP5006976

3. Properties of PG. P. A. Tesner and I. M. Timofeyeva determined that the density and properties of deposits were independent of the nature of hydrocarbons and that the hardness of PG depends on temperature of deposition and has a maximum in the 1000—1520C range. Other properties of PG — linear thermal expansion, mechanical characteristics, thermal conductivity, electrical conductivity, magnetic susceptibility, and Hall constant — were described solely on the basis of Western sources.

In conclusion, the use of PG as super-heat-resistant construction material, erosion-resistant coatings for rocket parts, moderator in nuclear fuel, and in high-temperature thermocouples and thermoelements is indicated. The only exclusively Soviet-originated application was given as a patent issued for PG-coated graphite tubes for use as highly efficient resistance heaters in electric furnaces.

Card 4/5

L 26926-65
ACCESSION NR: AP5006976

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, GC

NO REF SOV: 027

OTHER: 093

ATD PRESS: 3185-F

Card 5/5

CHAYLAKHYAN, I.K.

Some data on electrorretinography in myopia. Izv. AN Arm.SSR.
Biol. i sel'khoz.nauki 11 no.8:53-58 Ag '58. (MIRA 11:10)
(MYOPIA) (ELECTRORETINOGRAPHY)

CHAYLAKHYAN, L.M.

KEDER-STEPANOVA, I.A.; KOVALEV, S.A.; KULAYEV, B.S.; CHAYLAKHYAN, L.M.

Polarisation changes in the heart following vagal inhibition.
Fiziol.sbur. 42 no.9:821-825 S '56. (MIRA 9:11)

1. Elektrofiziologicheskaya laboratoriya Klinicheskoy ordena Lenina
bol'nitsy im. S.P.Botkina. Moskva.

(NERVES, VAGUS, physiology,

eff. of inhib. on heart polarisation (Rus))

(HEART, physiology,

polarization after vagus inhib. (Rus))

USSR / Human and Animal Physiology (Normal and Pathological).
Neuromuscular Physiology.

T

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60675

Author : Chaylakhyan, L. M.; Yur'yev, S. A.

Inst : Not given

Title : Study of the Time Relations of the Action Potential
and Impedance Changes in Excitation of the Frog Nerve

Orig Pub : Biofizika, 1957, 2, No 4, 417-426

Abstract : A bridge method was used (oscillograph as a zero-apparatus) as the most convenient and precise one for the measurement of rapid changes of the complex resistance in biological objects. The plan of the set-up is described. The general trunk of the sciatic nerve of a frog was used in a hermetic chamber. The nerve was placed on 20 platinum electrodes with a diameter of 0.3 mm. and a distance of 1.5 - 2 mm. between them. The

Card 1/3

USSR / Human and Animal Physiology (Normal and Pathological).
Neuromuscular Physiology.

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Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60675

impedance electrodes were 25.5 and 27 mm. from the stimulating ones, and the lead-off - 25.5 and 35.5 mm. The state of the nerve was determined by its excitability and the maximal magnitude of the action potential (AP) and also by changes in electrical conductivity. The time relation between the AP curve and the impedance change curve was judged by the difference in their latent periods (LP), which were measured by the record strip from the beginning to the emergence of the effect. The impedance changes (I) at the moment of excitation were insignificant. The relative reduction of the active components of I fluctuated within the limits of 0.03 - 0.10%, and the capacity reduction had limits of 0.1 - 0.3%. The changes in I in the course of the process of excitation were retarded as compared with the initial flow of AP, on the

Card 2/3

111

USSR / Human and Animal Physiology (Normal and Pathological).
Neuromuscular Physiology.

T

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60675

average, by 28.0 μ sec. LP of the I changes with a frequency of 70 kilohertz was shortened by 180 - 200 μ sec. in comparison with the duration of this period with a frequency of 35 kilohertz. The reduction of LP occurred due to the decrease in retardation time in the intensifier of the indicator channel. The time of delay of the I curve from the AP curve was also reduced by 180 - 200 μ sec. The average time for LP of the AP curve was 850 μ sec. The distance between the stimulating and the first lead-off electrode was 25.5 mm. From these data, the rate of the excitation wave conduction was ~30 m. per 1 sec. -- F. I. Mumladze

Card 3/3

CHAYLAKHYAN, L.M.

Studying the size and form of the "impedance spike" of a frog nerve at various interelectrode distances [with summary in English]. Biofizika 2 no.5:602-613 '57. (MIRA 10:11)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(NERVES) (ELECTROPHYSIOLOGY)

CHAYLAKHYAN, L.M.

Temporary connections in Protozoa and Coelenterata [with summary in English]. Zhur.vys.nerv.deiat. 7 no.5:765-774 S-O '57. (MIRA 10:12)

1. Kafedra vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(REFLEX, CONDITIONED,

temporary connections in Protozoa & Coelenterata (Rus))
(COELENTERATES,

temporary reflex connections (Rus))

CHAYLAKHYAN, L.M., Cand Bio Sci -- (diss) "Correlations *between*
~~of~~ activity potential and changes of electroconductivity
in the myelinated nerve (Data for analysis of the
ion structure
~~structural-ionic~~ relations of the *stimulation* ~~excitation~~ process)."
Mos 1958, 23 pp with graphs (Mos Order of Lenin and Order
of Labor Red Banner State Univ im M.V. Lomonosov)
150 copies (KL, 39-58, 108)

CHAYLAKHYAN, L.M.

Modern concepts of the nature of the resting potential. Biofizika
4 no. 4:385-400 '59. (MIRA 14:4)

(ELECTROPHYSIOLOGY)

LIBERMAN, Ye.A.; CHAYLAKHYAN, L.M.

Nature of the action potential. Biofizika 4 no.5:622-639 '59.

(MIRA 14:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ELECTROPHYSIOLOGY)

CHAYLAKHYAN, L.M.

Measurement of resting and action potentials in the giant nerve fiber
of a squid under different conditions of recording. Biofizika 6 no.3

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ELECTROPHYSIOLOGY) (NERVES)

(1961?)

CHAYLAKHYAN, I.M.

Electric structure of excited tissues and the mechanism of
the transmission of nerve impulses. Biofizika 7 no.5:639-651
'62. (M-RA 17:8)

1. Institut biologicheskoy fiziki AN SSSR, Moscow.

LIBERMAN, Ye.A.; CHAYLAKHYAN, L.M.

The nature of biopotentials of nerve and muscle fibers. Report No.1:
The current membrane theory and its difficulties. TSitologiya 5 no.3:
311-318 My-Je '63. (MIRA 17:5)

1. Institut biofiziki AN SSSR, Moskva.

LIBERMAN, Ye.A.; CHAYLAKHYAN, L.M.

Nature of biopotentials of nerve and muscle fibers. Report
No.2: Advantages and disadvantages of the current phase theory
of biopotentials. TSitologiya 5 no.4:440-448 J1-Ag '63.

(MIRA 17:8)

1. Institut biofiziki AN SSSR, Moskva.

GEL'FAND, I.M.; KOVALEV, S.A.; CHAYLAKHYAN, L.M

Intracellular stimulation of different parts of a frog's heart.
Dokl.AN SSSR 148 no.4:973-976 F '63. (MIRA 16:4)

1. Institut biologicheskoy fiziki AN SSSR. 2. Chlen-korrespondent
AN SSSR (for Gel'fand).
(Electrocardiography)

L 52331-65

ACCESSION NR: AP5015700

UR/0025/64/000/008/0022/0027

20
B

AUTHOR: Chaylakhyan, L. (Candidate of biological sciences, Scientific associate)

TITLE: Nerve impulses--alphabet of the brain--have an electrochemical nature

SOURCE: Nauka i zhizn', no. 8, 1964, 22-26

TOPIC TAGS: nervous system, electrochemistry, biochemistry

Abstract: Scientists' understanding of the mechanism of nerve impulse transmission has undergone substantial change in recent years. The views of Bernstein prevailed in science until recently. In his opinion, the nerve fiber is charged positively on the outside and negatively inside. This is explained by the fact that only positively charged ions of potassium (K^+) can pass through the walls of the fiber; the negatively charged anions, greater in size, are compelled to remain inside and create a surplus of negative charges. According to Bernstein, excitation results in the loss of the difference of the potentials, which is caused by the fact that the size of the pores is increased, and the anions come out and level the ion balance: the number of positive ions becomes equal to the number of negative ions.

Card 1/3

L 52331-65

ACCESSION NR: AP5015700

The network of Nobel Laureates for 1963 A. Hodgkins, E. Huxley, and D. Eccles changed previous understanding. They showed that positive sodium (Na^+) ions, negative chlorine (Cl^-) ions, and negatively charged molecule-transmitters also participate in nerve excitation. The quiescent state is formed in principle just as was considered previously: a surplus of positive ions outside of the nerve fiber, the surplus of negative ions, inside. However it was established that during excitation an overcharge occurs, not a leveling of the charges: outside a surplus of negative ions is formed while inside a surplus of positive ions is formed. This is explained by the fact that during excitation the molecule-transmitters begin to convey the positive ions of sodium through the wall.

Thus, the nerve impulse is transferred along the fiber by the overcharge of a dual electrical layer. However the excitation is passed from cell to cell by a unique chemical "battering ram," the molecule of acetylcholine, which aids the ions to break through the wall of the neighboring nerve fiber. Orig. art. has 9 figures and 2 graphs.

ASSOCIATION: Instituta biofiziki AN SSSR (Institute of Biophysics, AN SSSR)

Card 2/3

L 52331-65

ACCESSION NR: AP5015700

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, GC

NO REF SOV: 000

OTHER: 000

JPRS

Card 3/3 7:6

LIBERMAN, Yo.A.; CHAYLAKHYAN, L.M.

Two basic concepts of the nature of bioelectric potentials of
nerve and muscle fibers. Trudy MOIP. Otd. biol. 9:55-73 '64.
(MIRA 18:1)

1. Institut biofiziki AN SSSR, Moskva.

CHAYLAKHYAN, L.M.

Study of the electrical properties of muscle membrane under
various polarization conditions. Trudy MOIP. Otd. biol. 9:120-
127 '64. (MIRA 18:1)

1. Institut biofiziki AN SSSR, Moskva.

KOVALEV, S.A.; CHAYLAKHYAN, L.M.

Effect of some conditions of intracellular lead derivation on the recorded potentials. Trudy MOIP. Otd. biol. 9:175-179 '64.

(MIRA 18:1)

1. Institut biofiziki AN SSSR, Moskva.

LIBERMAN, Ye.A.; CHAYLAKHYAN, L.M.

Reply to "Some critical notes on E.A.Liberman and L.M.Chailakhian's article on the phase theory of bioelectric phenomena." TSitologiya 7 no.2:226-227 Mr-Apr '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BERKINBLIT, M.B.; KOVALEV, S.A.; SMOLYANINOV, V.V.; CHAYLAKHYAN, L.M.

Inlet resistance of syncytial structures. Biofizika 10 no.2:309-316
'65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BERKINBLIT, M.B.; KOVALEV, S.A.; SMOLYANINOV, V.V.; CHAYLAKHYAN, L.M.

Electric structure of the myocardial tissue. Dokl. AN SSSR 163 no.3:
741-744 J1 '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR. Submitted August 22, 1964.

ARSHAVSKIY, Yu.I.; BERKINBLIT, M.B.; KOVALEV, S.A.; SMOLYANINOV, V.V.;
CHAYLAKHYAN, L.M.

Role of dendrites in the functioning of nerve cells. Dokl. AN SSSR
163 no.4:994-997 Ag '65. (MIRA 18:8)

1. Institut biologicheskoy fiziki AN SSSR. Submitted August 22,
1964.

BERKINBLIT, M.B.; KOVALEV, S.A.; SMOIYANINOV, V.V.; CHAYLAKHYAN, L.M.

Determination of basic electric characteristics of the myocardium of the frog's ventricle. Biofizika 10 no.5:861-867 '65.

Characteristics of the distribution of potential in syncytial structures. Ibid.:883-885 (MIRA 18:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

POTAPOVA, T.V.; CHAYLAKHYAN, L.M.

Behavior of electrotropic potential in stretching frog
muscle fibers. Biofizika 10 no.6:1021-1029 '65.

(MIRA 1981)

1. Institut biologicheskoy fiziki, Moskva. Submitted June 22,
1965.

L 31221-66

ACC NR: AP6022785

SOURCE CODE: UR/0217/66/011/001/0134/0142

AUTHOR: Arshavskiy, Yu. I.; Chaylakhyan, L. M.

ORG: Institute of Biological Physics, AN SSSR, Moscow (Institut biologicheskoy fiziki AN SSSR)

TITLE: Mechanism of the effect of direct current on induced potentials of the cerebellum

SOURCE: Biofizika, v. 11, no. 1, 1966, 134-142

TOPIC TAGS: experiment animal, direct current, electric potential, cerebellum, electrophysiology, neurology, reflex activity, neuron, nervous system, bioelectric phenomenon

ABSTRACT: The effects of a direct current of 25-1,000 milliamperes on induced potentials of the paramedian region of the cortex of the cat cerebellum were studied. A direct current passed upwards (plus at the surface of the cortex) decreased the positive phase and greatly increased the negative phase of a local response (the bioelectric reaction to irritation of the common radial nerve), while increasing a diffuse response arising on irritation of the tibial nerve. A direct current passed downwards increased the positive phase and reduced the negative phase of the local response, while reducing the diffuse response. Passage of a direct current can be applied as a means of increasing weak responses of nerve tissue to various types of stimuli, so that these responses can be detected. This method ought to be particularly effective for structures with an arbitrary orientation of neurons. The data obtained indicated that the polarization effect occurring in connection with the generation of an induced potential must be ascribed to changes in the resistance of nerve tissue. The authors thank V. B. Petryayevskaya for technical help and M. B. Berkinblit, A. L. Bykov, E. A. Liberman, and Yu. A. Trifonov for their helpful discussion of the work.

Orig. art. has: 6 figures. /JPRS/

Card 1/1 SUB CODE: 06/SUBM DATE: 20Aug65/ORIG REF: 008/ OTH REF: 014 BLG

0915

0159

KURSANOV, A.L.; CHAYLAKHYAN, M. Kh.

Visit to the plant physiologists of Yugoslavia. Fiziol.
rast. 11 no. 3:557-561 '64. (MIRA 17:7)

CHAYLAKHYAN, M. Kh.

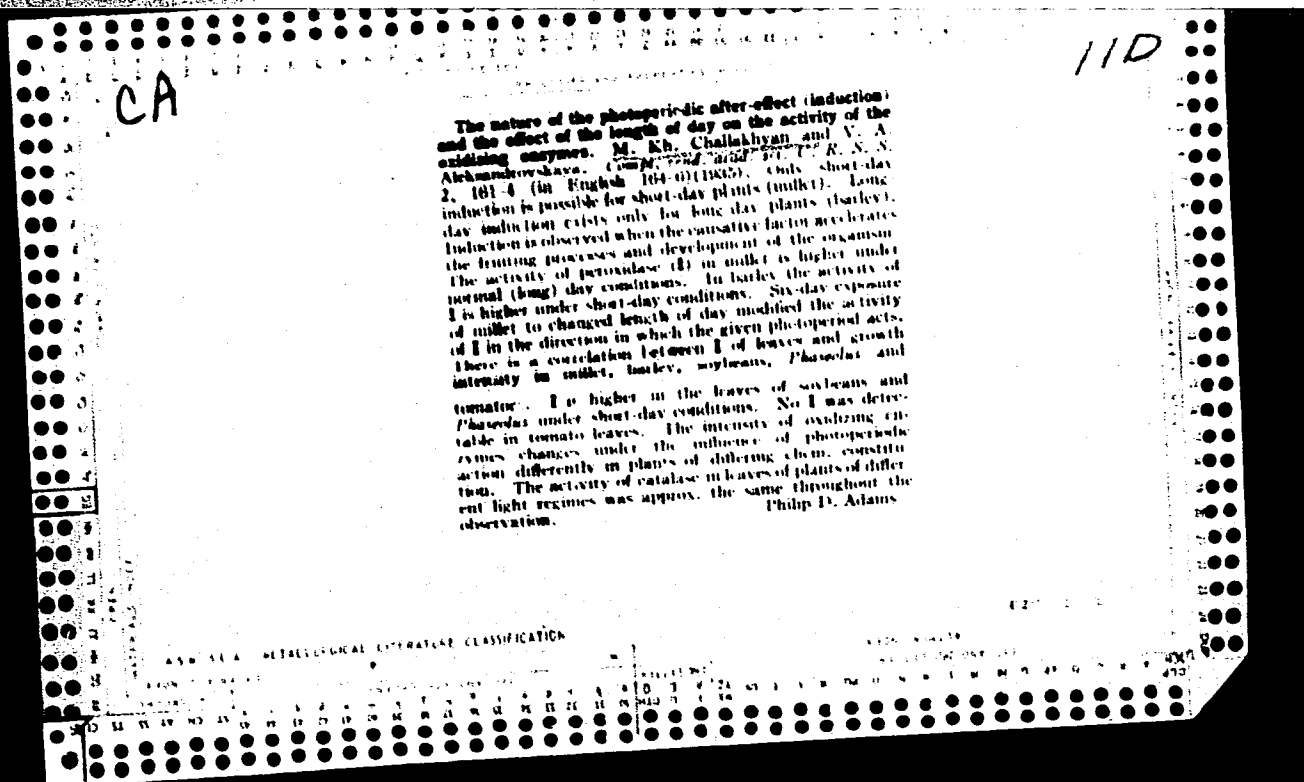
Life and work of Professor Dimitrii Anatol'evich Sabinin (1889-1951).
Fiziol. rast. 12 no.5:761-774 S-O '65. (MIRA 19:1)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva.

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
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<p><i>ca</i></p> <p>Formation and decomposition of chlorophyll in the leaves of winter and spring wheats. M. Kh. Chalkidzev. Comp. Acad. Sci. U. S. S. R. (M. S. S. R.), 1966, 127-8 (in English)</p> <p>129-30). —Plants of winter and spring wheats were grown in moist atmosphere at 25° in a thermostat with light (100-w. lamp) and dark compartments. The plants developed exclusively at the expense of nutritive substances in the endosperm of the seeds. The chlorophyll content was ascertained as early as the stage of the first well-developed leaf, i. e., 7-8 days after sowing. When wheat and barley were raised in continuous etc. light, the leaves of the winter varieties accumulated more chlorophyll than those of the spring. With etiolated sprouts grown for 7 days in the dark and then exposed to light, more chlorophyll formed in the leaves of winter wheats than in those of spring wheats. Green sprouts were tested for chlorophyll content and were then placed in the dark for 8-10 days. After this treatment the cont. of decomp. chlorophyll in the winter wheats was 43-73% and in spring wheats 73-90% of the original cont. of chlorophyll. L. K.</p>																																																			
<p>ASB-314 METALLURGICAL LITERATURE CLASSIFICATION</p> <p>830M 830M178</p> <p>831137 081 081 181</p>																																																			

1ST AND 2ND ORDERS												3RD AND 4TH ORDERS											
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<p>CA</p> <p>The age of plants and the photoperiodic reaction. M. K. Chelidze. (Comp. rend. acad. sci. U. R. S. S. R. 1966, 310-11 (in English 311-14). Shortening and lengthening of the time of exposure to light produce max. changes in growth effects in very young plants and in plants in their max. growth-rate stage. F. H. R.</p>																							
<p>450-354 METALLURGICAL LITERATURE CLASSIFICATION</p>																							
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<p>The effect of the length of day upon the chlorophyll apparatus of plants. M. Kh. Chasakhyan. <i>Compt. rend. acad. sci. U. R. S. S. (N. S.)</i> 1-87-9 (in English 40-2) (1934); cf. C. A. 28, 1730. A short-day period of exposure to light decreases the chlorophyll content of plants shortly after sprouting, but after a week the chlorophyll content is increased. F. H. Rathmann</p>																																																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																										COMMON ELEMENTS																									
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112

Hormonal theory of plant development. M. Kh. Chalkham. *Compt. rend. acad. sci. U. R. S. S.*, 441 (1956); cf. C. A. 31, 1464. The processes leading to the sexual development of plants are not detd. by the processes of growth and nutrition but are sp. and due to a flowering hormone elaborated in the leaves. H. C. A.

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ca 11D

Facts in support of the hormonal theory of plant development. M. K. Chakrabarty. *Comp. rend. acad. sci. U. R. S. S. (N. S.)*, 4, 79-83 (1960). Expts. with *Perilla nanibensis*, *Helianthus tuberosus* and *Helianthus annuus* indicate that the flowering of a plant begins as a result of the production in the leaves of a sufficient quantity of "florigen" or flower-forming hormone. R. D. W.

ASSOCIATED METEOROLOGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
1ST ORDER													2ND ORDER													3RD ORDER													4TH ORDER												
<p>CA</p> <p>Consideration of the facts supporting the hormonal theory of plant development. M. Kh. Chailakhyan. Bull. acad. sci. U. R. S. S., Ser. bio. 1937, 1041-1118; Chem. Zentr. 1938, I, 3070; cf. C. A. 31, 8616. The previous paper (cf. C. A. 31, 5837) on the mechanism of the photoperiodic reaction is enlarged upon. The flowering hormone is termed "florigen" (cf. C. A. 31, 1464). M. G. Moore</p>																																																			
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1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS													
ca										119																							
<p>Facts in support of the hormonal theory of plant development. II. M. Kh. Chailakhyan and L. M. Varkovaya. (Comp. rend. acad. sci. U.S.S.R. 15, 215-17 (1937) (in English); cf. C. A. 31, 1464 and preceding abstr.--The expts. dealt with in this work confirm the presumption that blossoming plants represent a source of blossom-forming hormones, or florogens and can be utilized as stock for accelerating the blossoming and fruit-bearing both in non-flowering annuals and perennials. F. S.</p>																																	
45B-56A METALLURGICAL LITERATURE CLASSIFICATION																																	
<table border="1"> <tr> <td>13001. STEELING</td> <td>13001. BOWING</td> </tr> <tr> <td>13001. STEELING</td> <td>13001. BOWING</td> </tr> </table>																														13001. STEELING	13001. BOWING	13001. STEELING	13001. BOWING
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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

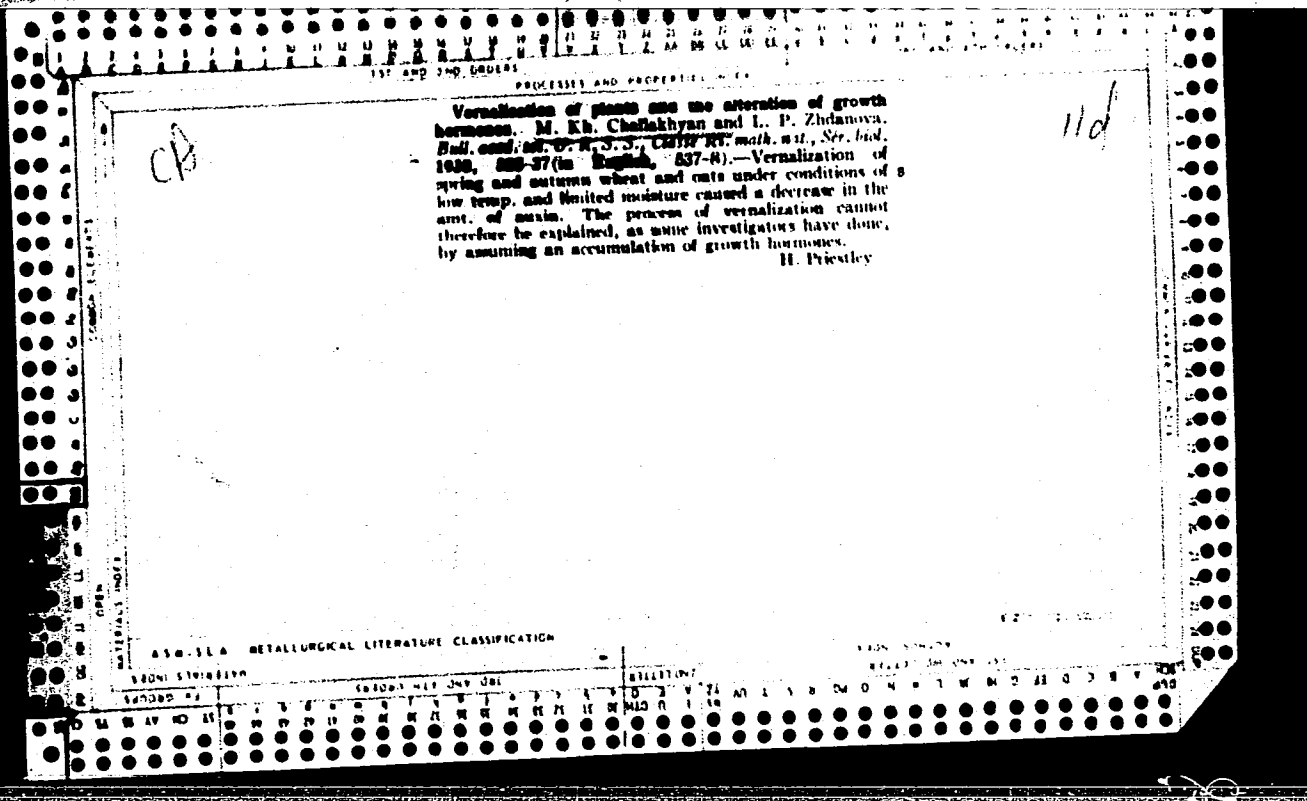
100 AND 11th ORDERS

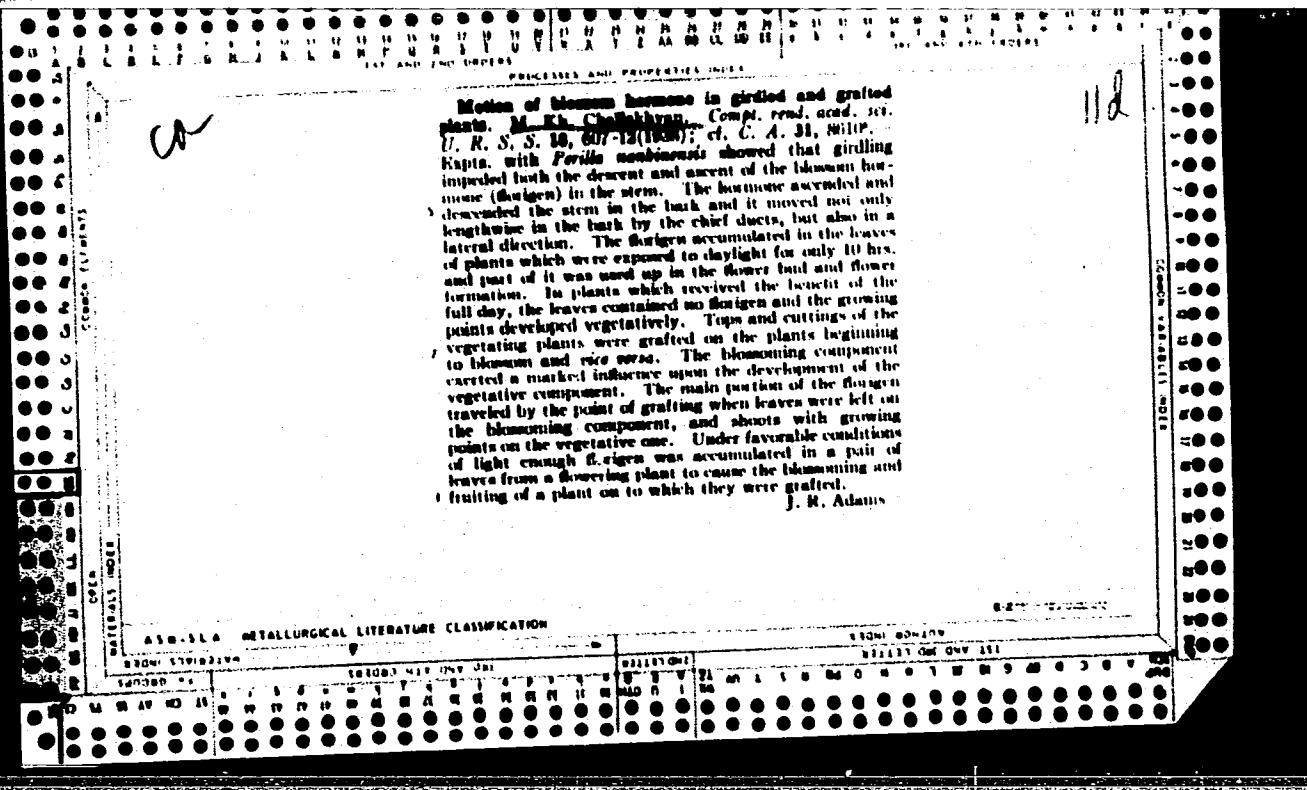
112

Hormonal nature of plant development processes. VI
K. Chellakumar. *Compt. rend. acad. sci. S. S. R. U.*
1967, 261(1017): 41. 1. 51, 28.67, 0280. A review of
previous work by C. on the flowering hormone.
J. J. Willman

ASAC 114 - METEOROLOGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100





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<p>The blossom hormones. (a reply to N. G. Kholodnyi). M. Kh. Chafakhyan. <i>Uspekhi Sovremennoi Biol.</i> 10, No. 3, 515-23 (1939); <i>Khim. Referat. Zhur.</i> 1939, No. 12, 34; cf. C. A. 33, 9307^g.—The processes of the growth and blossoming of plants are relatively independent of each other; the blossom hormones are not auxins. The blossom-forming substances are synthesized in the leaves and are transported to the branches. Auxins are synthesized at the points of growth. Exptl. data are presented that indirectly confirm these views. W. R. Henn</p>																									
<p>ASS-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																									

CHAYLAKHYAN, M. Kh.

"Translocation of Flowering Hormones Across Various Plant Organs. I. Across the Leaf," Dokl. AN SSSR, 27, No.2, 1940

" II. Across the Stem," ibid., No.3, 1940

" III. Across the Root," ibid., No.4, 1940

Inst. of Plant Physiology im. Timiryazev, AS USSR

CHAYLAKHYAN, M. Kh.

"Development of Plants Growing Under Different Light Conditions as Affected by Mineral Nutrition," Dokl. AN SSSR, 32, No.2, 1941

"Tuber Formation as Controlled by Photoperiod and Pruning," ibid.

Inst. Plant Physiology im. Timiryazev, AS USSR

CHAILAKHIAN, M. KH.

"The Physiological Nature of the Processes of Vernalization in Plants" (p.83)
by M. KH. Chailakhian (Moscow)

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XV, 1942, No. 1

17D

Content of vitamin C in wild rose of Armenia. M. Kh. Chelakhyun. *Compt. rend. acad. sci. U. R. S. S.* 66, 566-571(1963)(in English).--The vitamin C (I) content of Armenian wild rose berries from the central highland varied for most species from 1632 to 1232 mg. % with *R. boissieri* having the unusually high content of 3250 mg. %. The wild rose also found growing in the lowlands contained 853-886 mg. % of I. These wild rose, whose calyx leaves at the beginning of ripening were fleshy, colored and turned upward, were distinguished by a high content of I. J. W. Perry

Inst. Plant Physiol., Botanical Inst., Armenian Branch AS

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASS	SUBCLASS	SECTION	DETAILS
1	2	3	4	5
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51	52	53	54	55
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61	62	63	64	65
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76	77	78	79	80
81	82	83	84	85
86	87	88	89	90
91	92	93	94	95
96	97	98	99	100

CHAYLAKHYAN, M. Kh.

"Contribution to the Analysis of the Theory of Flowering of Plants," Dokl.
AN SSSR, 44, No.8, 1944

Yerevan State U. im. Molotov and Inst. Plant Physiology im. Timiryazev

1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
PROCESSES AND PROPERTIES INDEX																																																			
COMMON ELEMENTS													COMMON VARIANTS INDEX																																						
<p>CA</p> <p>112</p> <p>Relation between the vitamin C content and the form of the sepals of the fruit of the hedge rose. M. Chalkhayan. <i>Soviet. Botan.</i> 13, 60-2(1945)(in Russian).--Armenian varieties with sepals bent upwards and fleshy show generally a high vitamin C content: <i>Rosa boissieri</i>, <i>afzeliana</i>, <i>lomentosa</i>, <i>corymbifera</i>, <i>pulverulenta</i>, 1233-3258 mg./100 g. of fresh pulp; <i>R. yusepianii</i> 2145 mg./100 g. Low vitamin C content is always accompanied by sepals bent downwards and wilting rapidly: <i>R. lomentella</i>, <i>canina</i>, <i>corymbifera</i>, <i>iberica</i>, 863-400 mg.%; <i>R. rubrifolia</i> 872 mg.%. The same rule holds for Uzbekistan varieties: high vitamin content, <i>R. fedtschenkoana</i> 6-8, <i>webbiana</i> 8, <i>beggeriana</i> 8, <i>albertii</i> 4, <i>laxa</i> 4% of dry pulp; low content <i>R. canina</i> 0.1-1.3, <i>marcanica</i> 1.47, <i>corymbifera</i>, 0.87% of dry pulp. Vitamin C is absent in <i>R. eiae</i>, <i>kokanica</i>, <i>platycantha</i> and <i>foetida</i>, all with drooping sepals. Vitamin C evidently acts as a growth-promoting factor. N. Thou</p>																																																			
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131 AND 130 CODES		PROCESSES AND PROPERTIES INDEX		132 AND 134 CODES	
CA		<p>Flowering in different plant species as a response to nitrogenous food. M. Kh. Chulakhyan (K. A. Timiryazev Inst. for Plant Physiol., Acad. Sci., U.S.S.R.). <i>Compt. rend. acad. sci. U.R.S.S.</i> 47, 146-9(1945); <i>Doklady Akad. Nauk S.S.S.R.</i> 47, 140-53(1945); cf. C.A. 39, 1493'. — Wheat, corn, sunflower, cotton, alfalfa, clover, bean, and tobacco plants were grown in sand culture in 2-pot replications, were fed Prianshnikov soln. with a varied N supply, illumination controlled, and data taken on date of blossoming. On the basis of these and others data, plants are classified into: nitronegative plants which blossom sooner when on low N diet (wheat, barley, oats, mustard, spinach, alfalfa, clover, salvia, <i>Clarkia</i>, geranium, and <i>Iberis</i>); nitropositive plants which blossom sooner when on high N diet (millet, corn, mohar, <i>Perilla nankinensis</i>, sunflower, tobacco, cotton, pepper, lettuce, lupine, chrysanthemum, <i>Tagetes</i>, <i>Nasturtium</i>, <i>Finantia</i>, and <i>Kalanchoe</i>); and nitronutral plants with blossoming date unaffected by N nutrition (buckwheat, hemp, pea, soybean, and bean). Data on dry wt. and nodule wt. of plants with different N nutrition and day length are given.</p> <p>K. Starr Chester</p>		110	
ASB-55A METALLURGICAL LITERATURE CLASSIFICATION					
130000 131000 132000 133000 134000		130000 131000 132000 133000 134000		130000 131000 132000 133000 134000	

CHAYLAKHYAN, M. Kh.

"Photoperiodism of Individual Parts of the Leaf, Its Halves," Dokl. AN SSSR,
47, No. 3, 1945

Inst. of Plant Physiology im. Timiryazev, AS USSR
Armenian Agricultural Acad., Yerevan

CHAYLAKHYAN, M. Kh. and MEGRABYAN, A. A.

"Effect of Day Length Upon the Formation of Root Nodules on the Roots of Leguminous Plants," Dokl. AN SSSR, 47, No.6, 1945

131 AND 132 CIPHER																									
PRECEDENCE AND PRIORITY INDEX																									
<div style="display: flex; justify-content: space-between;"> CA 110 </div> <p>Effect of soluble nitrogenous compounds upon formation of nodules on roots of leguminous plants. M. Kh. Challaikhyan and A. A. Megrahyan (Armenian Agr. Inst., Yerevan). <i>Doklady Akad. Nauk S.S.S.R.</i> 48, 145-5 (1945); <i>Compt. rend. acad. sci. U.R.S.S.</i> 48, 138-41 (1945). -French lentils (<i>Ervum vicia</i>) (I), soybeans, peas, and beans (<i>Phaseolus vulgaris</i>) were grown in a two story arrangement. The upper was a pot contg. N-free sand (II) and the lower a jar contg. H₂O solns. (III). The roots from the plants in II extended through cheese cloth into nitrogenous solns. in III. II was inoculated and after a month the no. and wt. of the root nodules in II were detd. The plants were supplied with N-free Priamishnikov nutrient mixture in both II and III with NaNO₃ (IV), KNO₃, NH₄NO₃ (V), (NH₄)₂SO₄ (VI), or asparagine (VII) also in III. The N compds. entirely prevented the formation of nodules except in the case of I which developed a few nodules with IV and V. VI and VII even inhibited root growth in III. The development of the root-nodule bacteria was not controlled by the amt. of sol. N in the substratum but by the N already in the plant tissues.</p> <p style="text-align: right;">Carl S. Gilbert</p>																									
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<p>Correlation between the reaction of flowering to the nitrogenous food and the photoperiodic reaction of the plant. M. Kh. Chakhyan (K. A. Timiryazev Inst. Plant Physiology, Acad. Sci. U.S.S.R.). <i>Compt. rend. acad. sci. U.R.S.S.</i> 48, 300-4(1945)(in English); cf. <i>C.A.</i> 30, 1493. Seventeen species of long-day (I) and short-day (II) plants were grown under conditions of (a) 1/2 dose of N (as NH_4NO_3), or (b) full dose of N, or (c) 3 full doses of N. Of I, wheat, spinach, and poppy bloomed earliest under condition (a) and were called N-negative; radish, <i>Lupinus angustifolius</i>, <i>Rudbeckia hirta</i>, and <i>Carthamus tinctorius</i> under condition (b) and were considered N-positive with low threshold. Of II, cosmos and corn (male flowers) responded to (b) while tobacco, <i>Hibiscus cannabinus</i>, sunflower, and corn (female flowers) responded to (c) and hence were N-positive. Tomatoes bloomed earliest with (b) under a natural long day, and with (c) under an artificially short day of 10 hrs. Flax and hemp flowered at the same times with different N nutrition and were N-neutral. Since II originated in tropical regions, their evolutionary development may have been along the line of max. utilization of nutrition while the selection of species in I in the temperate zones was towards fast development with slighter use of conditions of nutrition.</p> <p style="text-align: right;">Carl S. Gilbert</p>																																																																																																																																																																																																															
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CHAYLAKHYAN, M. Kh.

"Photoperiodic Response of Plants When Their Individual Leaves Go on Different Day Lengths," Dokl. AN SSSR, 54, No.8, 1946

Inst. Plant Physiology im. Timiryazev, AS USSR

CHAYLAKHYAN, M. Kh.

"Influence of Leaves Exposed to Different Day Length Upon Development of Shoots,"
Dokl. AN SSSR, 54, No.9, 1946

CHAYLAKHYAN, M.KH.

PA 58771

USSR/Medicine - Plants
Medicine - Physiology

Jan 1947

"The Nature of the Action of Leaves Retarding Blossoming," M. Kh. Chaylakhyan, Inst Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LV, No 1, pp. 69-72

Experiments conducted show that substances having special retarding function on blossoming of plants are not formed but are based on action of assimilators of sugars produced in leaves. Submitted by Academician A. A. Rikhter, 18 Oct 1946.

58771

CHAYLAKHYAN, M. Kh.

"Development of Different Species of Broodrape as Connected with Growth and Development of Their Hosts," Dokl. AN SSSR, 55, No.9, 1947

CHAYLAKHYAN, M. Kh.

"False Immunity of Plants," Dokl. AN SSSR, 56, No.1, 1947

Inst. of Plant Physiology in. Timiryazov

CHAYLAKHYAN, M. Kh.

"The Susceptibility to Floral Parasites and the Sex of Plants," Dokl. AN
SSSR, 56, No.3, 1947

CHAYLAKHYAN, M. Kh.

PA 67T1

USSR/Academy of Sciences

Jan/Feb 1948

"In Memory of Academician A.A. Rikhter," M. Kh. Chaylakhyan, 7½ pp

"Iz Ak Nauk SSSR, Ser Biolog" No 1

Rikhter died on 2 Apr 1947. His biography is presented. During the latter part of his life Rikhter was Director of the Photosynthesis Laboratory, and was well-known for work in biochemistry, and physiology.

67T1

CA

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Nature of substances which accelerate or retard
blossoming in plants, and the Klebs theory. ~~Challabha~~
~~Challabha~~ *Upphi* *Savemana* *Biol.* 26, 515-80
(1948).—A review; 70 references. J. F. S.

CHAYLAKHYAN, M. KH.

PA76TSO

USSR/Medicine - Plants
Medicine - Botany

Jun 1948

"Internal Factors of the Flowering and Maturing Stage
of Plants," M. Kh. Chaylakhyan, Inst of Plant Physiol
Imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 7

Gives results of some experiments as basis for gen-
eral conclusions on nature of substances determining
flowering and maturing stage of plants. Submitted
Apr 1948.

76x80

CHAYLAKHYAN, M. KH.

FA 78146

USSR/Medicine - Plants, Physiology
Medicine - Effects, Light

Jun 1948

"The Importance of the Interruption of Light Periods
by Darkness in Photoperiodic Reactions of Plants,"
M. Kh. Chaylakhyan, I. A. Rupcheva, Inst of Plant
Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Results of experiments conducted to determine the
effect of the length of light periods on the develop-
ment of plants. Submitted by Acad N. A. Maksimov 19
Apr 1948.

78146

CHAYLAKHYAN, M. Kh.

"Influence of Discontinuous Light on the Generative Development of Plants,"
Dokl. AN SSSR, 61, No.3, 1948

Inst. Plant Physiology im. Timiryasev, AS USSR

131

Influence of Temperature on the Photo-periodism of Plants. (In Russian.) M. Kh. Chailakhyan and L. P. Zhdanova. Doklady Akademii Nauk SSSR (Reports of the Academy of Sciences of the USSR), new ser., v. 62, Oct. 1, 1948, p. 549-552.

The literature is reviewed and experimental data are tabulated. 18 ref.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

STANDARD NO. 100 AND ONE LETTERS

STILL ONE ONLY 151